

(43) International Publication Date
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number
WO 2005/032786 A3(51) International Patent Classification⁷: B28C 5/12, 5/46, 7/16, B01F 15/02, 13/04, B65D 88/04, F16J 12/00, 13/24

(74) Agent: CHAVE, Lynne, F.; Urquhart-Dykes & Lord LLP, New Priestgate House, 57 Priestgate, Peterborough, Cambridgeshire PE1 1JX (GB).

(21) International Application Number:

PCT/GB2004/004176

(22) International Filing Date: 1 October 2004 (01.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0323120.6 3 October 2003 (03.10.2003) GB

(71) Applicant (for all designated States except US): CARROLL AUTOLOAD LIMITED [GB/GB]; Wakefield House, Little Casterton Road, Stamford, Lincolnshire, PE9 1BE (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WAKEFIELD, Anthony, Walby [GB/GB]; Carroll Autoload Limited, Wakefield House, Little Casterton Road, Stamford, Lincolnshire, PE9 1BE (GB). CARROL, John, Joseph [GB/GB]; Carroll Autoload Limited, Little Casterton Road, Stamford, Lincolnshire, PE9 1BE (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

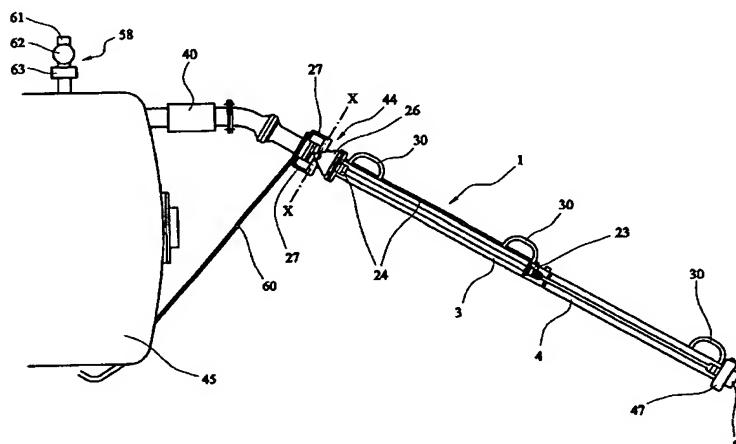
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: MIXING APPARATUS



WO 2005/032786 A3

(57) Abstract: Mixing apparatus comprising a batch mixing vessel (45) with an inlet (40) to receive constituent material, an agitation assembly for mixing the constituents and an outlet to convey batches of the mixed is provided. The apparatus includes means (120) for pressurizing the vessel to assist in evacuation of the mix, and a conduit (210) through which the mix is conveyed. A single pneumatic source is used both to pressurize the mixing vessel and to drive a jet pump (62) comprising the batch loading means. During the mixing cycle, the compressor used to discharge the finished mix is generally idle. It has been discovered, that this compressor can be used during these periods to drive a jet pump to load the mixing vessel. Therefore, manual loading is avoided and can be achieved such that the mixing cycle time is not interrupted.



- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
16 June 2005